

Remarks

Upon entry of the present amendments, claims 12 and 14-16 will be pending. Claims 1-11 and 13 are canceled. Claims 14-16 are new. Claim 12 is amended. Reconsideration in view of the above presented amendments and following remarks is respectfully requested.

Response to Objection to the Specification

In response to the objection, the specification has been amended such that it no longer refers to the claims.

Support for Claim Amendments and New Claims

Claim 12 has been amended to reflect that the surface of the stainless steel substrate is etched via ion-etching. Support for this amendment can be found in at least original claim 1, as well as on pg. 9, lines 1-10 of the application as filed. Support for the thickness of the layer applied to the substrate can be found on at least page 13, lines 1-10 of the application as filed, as well as original claim 2. Support for the use of electron beam evaporation process can be found on at least page 13, lines 1-10.

New claim 14 finds support on at least page 13, line 8.

New claim 15 finds support on at least pages 10-11.

New claim 16 finds support on at least page 12, lines 10-15.

Response To Rejections Under 35 U.S.C. § 103

Claims 1-11 and 13 stand rejected under 35 U.S.C. §103(a) as obvious over Japanese Patent Application No. 2-122064 to Taruya (hereafter “*Taruya*”). Applicants respectfully submit that this rejection is moot in view of the cancellation of claims 1-11 and 13.

Claims 1-13 are also rejected under 35 U.S.C. §103 (a) as being unpatentable over Applicant’s alleged disclosure, in view of U.S. Patent No. 6,280,581 to Cheng (“*Cheng*”), further in view of Japanese Patent Application No. 2003-203534 to Iwamizu (hereafter “*Iwamizu*”). Applicant respectfully submits that this rejection is moot with respect to claims 1-11 and 13 as these claims have been canceled. Claim 12 is not obvious in view of the references cited by the Examiner for at least the reasons set forth below.

In particular, claim 12 recites “etching a surface of a stainless steel strip with ion-assisted etching to remove oxides from said surface, forming an etched surface; and depositing a layer of metal to a thickness of about 0.05 to about 15 μm on said etched surface using an electron beam evaporation process.” This process is not taught or suggested in the art cited by the Examiner.

As a preliminary matter, Applicant respectfully disagrees with Examiner’s characterization of the cited portion of the pending specification as prior art. That said, even if the cited portion of the specification can be relied on by the Examiner as “prior art,” the passages cited by the Examiner do not teach or disclose the use of an etching procedure. Combination with Cheng and/or Iwamizu does not remedy this deficiency. Cheng, for example, provides a method and apparatus for electroplating copper on a semiconductor wafer with an improved uniformity of film thickness and with good gap fill properties. Cheng does not teach or suggest etching a substrate prior to coating the substrate using an electron beam process.

Similarly, Iwamizu does not provide the requisite disclosure. Rather, Iwamizu discloses electrolytic etching of a Cu layer deposited on a stainless steel substrate. *See, e.g.*, Iwamizu ¶¶ 5 and 14-16. Iwamizu does not, however, disclose etching the stainless steel substrate itself, or suggest that such a process is useful or necessary.

Therefore, as combination of the cited references does not teach all of the elements of claim 12, claim 12, as well as new claims 14-16 which depend there from, are not obvious in view of the art cited by the Examiner. The Examiner is therefore respectfully requested to withdraw the rejection of claim 12, and acknowledge the allowability of this claim, as well as all claims that depend there from.

Conclusion

From the foregoing, further and favorable action in the form of a Notice of Allowance is earnestly solicited. Should the Examiner feel that any issues remain, it is requested that the undersigned be contacted so that any such issues may be adequately addressed and prosecution of the instant application expedited.

Respectfully submitted,

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